AMENDMENTS TO THE CLAIMS

Please amend the claims as follows.

- 15. (amended) A linear polymer made by a process comprising the steps of
 - (a) reacting hexachlorobutadiene with n-butyl lithium to form 1,4-dilithio-1,3-butadiyne,
 - (b) reacting the 1,4-dilithio-1,3-butadiyne of step (a) with (dimethylamino)(R⁹-disubstituted)chlorosilane, wherein each R⁹ is independently selected from the group consisting of alkyl, aryl, alkylaryl, haloalkyl, haloaryl and mixtures thereof, to form 1,4-bis(dimethylamino, R⁹-disubstituted-silyl)butadiyne,
 - (c) reacting [1,4-]bis(hydroxy-R¹⁰-disubstituted-silyl)-Ar, wherein Ar is an aromatic group, wherein R¹⁰ is independently selected from the group consisting of alkyl, aryl, alkylaryl, haloalkyl, haloaryl and mixtures thereof, with bis(dimethylamino)R¹¹-disubstituted-silane, wherein R¹¹ independently is selected from the group consisting of alkyl, aryl, alkylaryl, haloalkyl, haloaryl and mixtures thereof, to form a prepolymer of the formula:

$$\begin{bmatrix} R^{10} & R^{10} & R^{10} \\ I & I & R^{10} \\ I & I & I \\ R^{10} & R^{10} & R^{10} \\ R^{10} & R^{10} & R^{10} \end{bmatrix} \xrightarrow{R^{10}} Ar \xrightarrow{R^{10}} Ar \xrightarrow{R^{10}} OH$$

wherein n is an average value greater than or equal to 0, and wherein the value of n is controlled by selecting the initial molar ratio of [1,4-]bis(hydroxy-R¹⁰-disubstituted-silyl)[benzene]<u>Ar</u> and bis(dimethylamino)R¹¹-disubstituted-silane, and

(d) reacting the prepolymer of step (c) with the 1,4-bis(dimethylamino, R⁹-disubstituted-silyl)butadiyne of step (b) to form a linear polymer.

- 17. (amended) A linear polymer made by a process comprising the steps of
 - (a) reacting hexachlorobutadiene with n-butyl lithium to form 1,4-dilithio-1,3-butadiyne,
 - (b) reacting the 1,4-dilithio-1,3-butadiyne of step (a) with

(dimethylamino)dimethylchlorosilane to form 1,4-

bis(dimethylaminodimethylsilyl)butadiyne,

(c) reacting 1,4-bis(hydroxydimethylsilyl)benzene with

bis(dimethylamino)dimethylsilane, to form a prepolymer of the formula:

$$\begin{bmatrix} \mathsf{CH_3} & \mathsf{CH_3} & \mathsf{CH_3} & \mathsf{CH_3} \\ \mathsf{HO} & \mathsf{Si} & \mathsf{O} & \mathsf{Si} & \mathsf{O} & \mathsf{Si} \\ \mathsf{CH_3} & \mathsf{CH_3} & \mathsf{CH_3} & \mathsf{CH_3} & \mathsf{CH_3} \\ \end{bmatrix}$$

wherein n is an average value greater than or equal to 0, and wherein the value of n is controlled by selecting the initial molar ratio of 1,4-bis(hydroxydimethylsilyl)benzene and bis(dimethylamino)dimethylsilane, and

(d) reacting the prepolymer of step (c) with the 1,4-

bis(dimethylaminodimethylsilyl)butadiyne of step (b) to form the linear polymer.

STATUS OF CLAIMS AND SUPPORT FOR CLAIM CHANGES

Claims 1-17 are pending in the application. Claims 15 and 17 are amended by this paper.

Claim 15, step (c) is amended to cancel "1,4-" in lines 1 and 10 of step (c), as the Ar group to which it applies is generic.

Claim 15, step (c) is amended to change "benzene" to "Ar" in line 11 of step (c) for consistency with the first recitation of this compound.

Claims 15 and 17 are amended to correct the structure of the recited compounds by shifting the right-hand parenthesis so that there are no Si-Si bonds. Support for this amendment is found at cols. 3-4, compound 6.

It is submitted that the reissue application is now in condition for allowance.

In the event that a fee is required, please charge the fee to Deposit Account No. 50-0281, and in the event that there is a credit due, please credit Deposit Account No. 50-0281.

Respectfully submitted,

Joseph T. Grunkemeyer

Reg. No. 46,746

Phone No. 202-404-1556

Office of the Associate Counsel

(Patents), Code 1008.2

Naval Research Laboratory

4555 Overlook Ave, SW

Washington, DC 20375-5325